

FM Stereo FM/AM Receiver

Operating Instructions

STR-DG300

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To prevent fire, do not cover the ventilation of the apparatus with newspapers, table-cloths, curtains, etc. And don't place lighted candles on the apparatus.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.



Don't throw away batteries with general house waste; dispose of them correctly as chemical waste.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

About This Manual

- The instructions in this manual are for model STR-DG300. Check your model number by looking at the lower right corner of the front panel.
- The instructions in this manual describe the controls on the supplied remote. You can also use the controls on the receiver if they have the same or similar names as those on the remote.

This receiver incorporates Dolby* Digital and DTS**.

* Manufactured under license from Dolby Laboratories.

“Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

** “DTS” and “DTS 2.0” are trademarks of Digital Theater Systems, Inc.

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Using the Remote

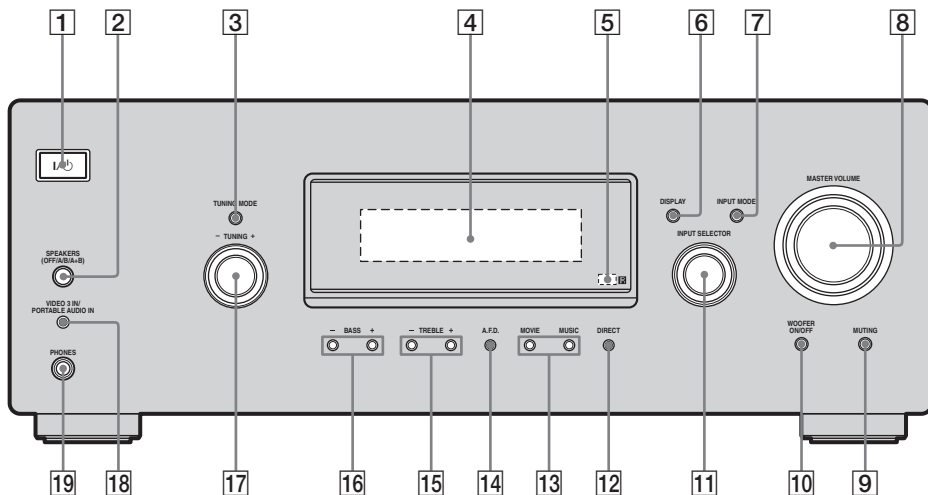
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Description and location of parts

Front panel

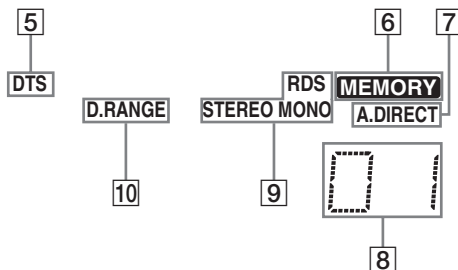
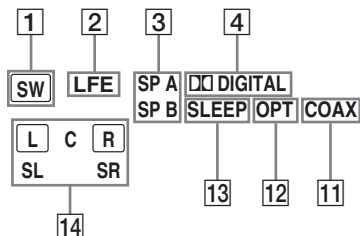


Name	Function
1 I/O	Press to turn the receiver on or off (page 19, 23, 24, 32, 34).
2 SPEAKERS (OFF/A/B/A+B)	Press to select the speaker system (page 20).
3 TUNING MODE	Press to select the tuning mode (page 33, 36).
4 Display	The current status of the selected component or a list of selectable items appears here (page 6).
5 Remote sensor	Receives signals from remote commander.
6 DISPLAY	Press to select information displayed on the display (page 37, 38).

Name	Function
7 INPUT MODE	Press to select the input mode when the same components are connected to both digital and analog jacks (page 38).
8 MASTER VOLUME	Turn to adjust the volume level of all speakers at the same time (page 21, 22, 23, 24).
9 MUTING	Press to mute the sound (page 22).
10 WOOFER ON/OFF	Press to turn the sub woofer on or off.
11 INPUT SELECTOR	Turn to select the input source to playback (page 22, 23, 24, 31, 33, 36, 38, 39).
12 DIRECT	Press to listen to high quality analog sound (page 31).

Name	Function
13 MOVIE, MUSIC	Press to select sound fields for movie or music (page 29).
14 A.F.D.	Press to select A.F.D. mode (page 29).
15 TREBLE +/-	Press to adjust the treble level of the front speakers (page 28).
16 BASS +/-	Press to adjust the bass level of the front speakers (page 28).
17 TUNING +/-	Turn to scan a station (page 33, 35).
18 VIDEO 3 IN/ PORTABLE AUDIO IN jack	To connect a portable audio such as MP3 player, etc. (page 15, 22).
19 PHONES jack	Connects to a headphone (page 43).

About the indicators on the display

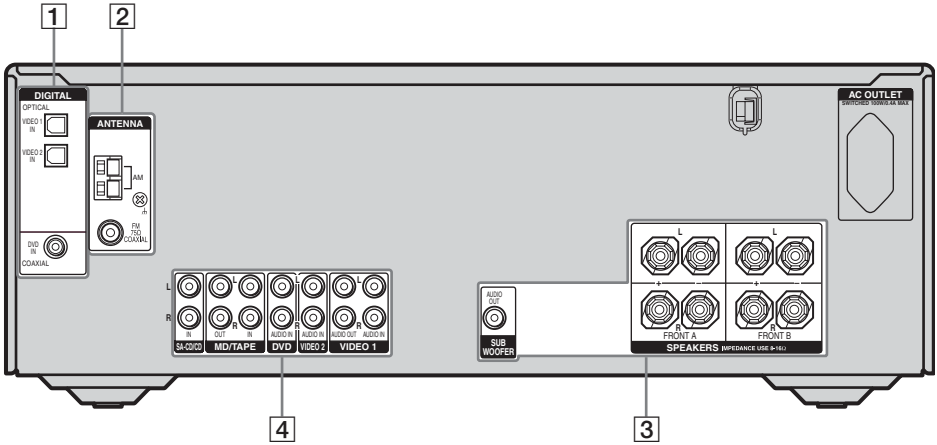


Name	Function
1 SW	Lights up when you press WOOFER ON/OFF on the receiver to turn on the sub woofer and the audio signal is output from the SUB WOOFER jack.
2 LFE	Lights up when the disc being played back contains an LFE (Low Frequency Effect) channel and the LFE channel signal is actually being reproduced.
3 SP A/SP B	Lights up according to the speaker system used. However, these indicators do not light up if the speaker output is turned off or if a headphone is connected.
4 DIGITAL	Lights up when Dolby Digital signals are input. Note When playing a Dolby Digital format disc, be sure that you have made digital connections and that INPUT MODE is not set to "ANALOG" (page 38).
5 DTS	Lights up when DTS signals are input. Note When playing a DTS format disc, be sure that you have made digital connections and that INPUT MODE is not set to "ANALOG" (page 38).
6 MEMORY	Lights up when a memory function, such as Preset Memory (page 35), etc., is activated.

Name	Function
7 A.DIRECT	Lights up when ANALOG DIRECT is selected (page 31).
8 Preset station indicators	Lights up when using the receiver to tune in radio stations you have preset. For details on presetting radio stations, see page 35.
9 Tuner indicators	Lights up when using the receiver to tune in radio stations (page 32), etc.
10 D.RANGE	Lights up when dynamic range compression is activated (page 27).
11 COAX	Lights up when INPUT MODE is set to "AUTO IN" and the source signal is a digital signal being input through the COAXIAL jack, or when INPUT MODE is set to "COAX IN" (page 38).
12 OPT	Lights up when INPUT MODE is set to "AUTO IN" and the source signal is a digital signal being input through the OPTICAL jack, or when INPUT MODE is set to "OPT IN" (page 38).
13 SLEEP	Lights up when the sleep timer is activated (page 39).

Name	Function
14 Playback channel indicators	The letters (L, C, R, etc.) indicate the channels being played back. The boxes around L and R show the receiver downmixes the source sound to 2 channels.
L	Front Left
R	Front Right
C	Center (monaural)
SL	Surround Left
SR	Surround Right
	Example:
	Recording format (Front/
	Surround): 3/2.1
	Sound Field: A.F.D. AUTO
	<div style="text-align: center;"> SW </div>
	<div style="text-align: center;"> L C R </div>
	<div style="text-align: center;"> SL SR </div>

Rear panel



1 DIGITAL INPUT section



OPTICAL IN jack Connects to a DVD player, etc. The COAXIAL jack provides a better quality of loud sound (page 16).



COAXIAL IN jack

2 ANTENNA section



FM ANTENNA Connects to the FM wire antenna supplied with this receiver (page 18).



AM ANTENNA Connects to the AM loop antenna supplied with this receiver (page 18).

3 SPEAKER section



Connects to speakers (page 13).



Connects to sub woofer (page 13).

4 AUDIO INPUT/OUTPUT section



White (L) AUDIO IN/OUT jack Connects to an MD deck or VCR, etc. (page 15, 16).

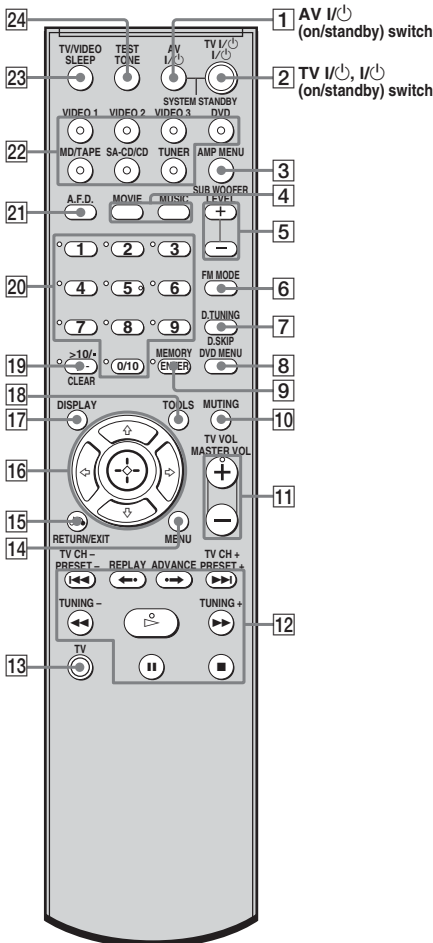


Red (R)

Remote commander

You can operate the receiver with the supplied remote. You can also use the remote to control the Sony audio/video components that the remote is assigned to operate (page 40).

RM-AAU007




Name	Function
1 AV I/⏻	Press to turn on or off the Sony audio/video components that the remote is assigned to operate (page 40). If you press I/⏻ (2) at the same time, it will turn off the receiver and other components (SYSTEM STANDBY). Note The function of the AV I/⏻ switch changes automatically each time you press the input buttons (23).
2 TV I/⏻	Press TV I/⏻ and TV (13) at the same time to turn the TV on or off.
I/⏻	Press to turn the receiver on or off. To turn off all components, press I/⏻ and AV I/⏻ (1) at the same time (SYSTEM STANDBY).
3 AMP MENU	Press to display the menu of the receiver. Then, use the control buttons to perform menu operations.
4 MOVIE, MUSIC	Press to select sound fields for movie or music.
5 SUB WOOFER LEVEL +/-	Press to adjust the sub woofer level.
6 FM MODE	Press to select FM monaural or stereo reception.
7 D.TUNING	Press to enter direct tuning mode.
D.SKIP	Press to skip disc of the CD player or DVD player (multi-disc changer only).
8 DVD MENU	Press to display the menu of the DVD player on the TV screen. Then, use the control buttons to perform menu operations.
9 ENTER	Press to enter the value after selecting a channel, disc or track using the numeric buttons.
MEMORY	Press to store a station.

continued

Name	Function
10 MUTING	Press to mute the sound.
11 TV VOL +^{a)}/-	Press TV VOL +/- and TV (13) at the same time to adjust the TV volume level.
MASTER VOL +^{a)}/-	Press to adjust the volume level of all speakers at the same time.
12 ◀◀/▶▶	Press to skip tracks of the CD player, DVD player, MD deck, or tape deck.
REPLAY ◀-/ ADVANCE ▶→	Press to replay the previous scene or fast forward the current scene of the VCR or DVD player.
◀◀/▶▶	Press to – search tracks in the forward/backward direction of the DVD player. – fast forward/rewind of the VCR, CD player, MD deck, or tape deck.
▷^{a)}	Press to start playback of the VCR, CD player, DVD player, MD deck, or tape deck.
 	Press to pause playback or recording of the VCR, CD player, DVD player, MD deck, or tape deck. (Also starts recording with components in recording standby.)
■	Press to stop playback of the VCR, CD player, DVD player, MD deck, or tape deck.
TV CH +/-	Press TV CH +/- and TV (13) at the same time to select preset TV channels.
PRESET +/-	Press to select – preset stations. – preset channels of the VCR or satellite tuner.
TUNING +/-	Press to scan a station.
13 TV	To activate the buttons with orange printing, press TV and the button with orange printing simultaneously.

Name	Function
14 MENU	Press to display the menus of the VCR, DVD player, or satellite tuner on the TV screen. Then, use the control buttons to perform menu operations.
15 RETURN/ EXIT ↶↷	Press to – return to the previous menu. – exit the menu while the menu or on-screen guide of the DVD player, or satellite tuner is displayed on the TV screen.
16 Control buttons	After pressing AMP MENU (3), DVD MENU (8), or MENU (14), press the control button ▲ , ▼ , ◀ or ▶ to select the settings. When you press DVD MENU or MENU, press the control button to enter the selection.
17 DISPLAY	Press to select information displayed on the TV screen of the VCR, satellite tuner, CD player, DVD player, or MD deck.
18 TOOLS	Press to display options applicable to the entire disc (e.g. disc protection), recorder (e.g. audio settings during recording), or multiple items on a list menu (e.g. erasing multiple titles).
19 -/-	Press -/- and TV (13) at the same time to select the channel entry mode, either one or two digits of the TV.
>10/-	Press to select – track numbers over 10 of the VCR, satellite tuner, CD player or MD deck. – channel numbers of the Digital CATV terminal.
CLEAR	Press to – clear a mistake when you press the incorrect numeric button. – return to continuous playback, etc. of the satellite tuner or DVD player.

Name	Function																
20 Numeric buttons (number 5^a)	<p>Press to</p> <ul style="list-style-type: none"> – preset/tune to preset stations. – select track numbers of the CD player, DVD player or MD deck. Press 0/10 to select track number 10. – select channel numbers of the VCR or satellite tuner. <p>Press the numeric buttons and TV (13) at the same time to select the TV channels.</p>																
21 A.F.D.	Press to select A.F.D. mode.																
22 Input buttons	<p>Press one of the buttons to select the component you want to use. When you press any of the input buttons, the receiver turns on. The buttons are factory assigned to control Sony components as follows. You can change the button assignments following the steps in “Changing button assignments” on page 40.</p> <table border="1"> <thead> <tr> <th>Button</th> <th>Assigned Sony component</th> </tr> </thead> <tbody> <tr> <td>VIDEO 1</td> <td>VCR (VTR mode 3)</td> </tr> <tr> <td>VIDEO 2</td> <td>VCR (VTR mode 2)</td> </tr> <tr> <td>VIDEO 3</td> <td>Not assigned</td> </tr> <tr> <td>DVD</td> <td>DVD player</td> </tr> <tr> <td>MD/TAPE</td> <td>MD deck</td> </tr> <tr> <td>SA-CD/CD</td> <td>Super Audio CD/CD player</td> </tr> <tr> <td>TUNER</td> <td>Built-in tuner</td> </tr> </tbody> </table>	Button	Assigned Sony component	VIDEO 1	VCR (VTR mode 3)	VIDEO 2	VCR (VTR mode 2)	VIDEO 3	Not assigned	DVD	DVD player	MD/TAPE	MD deck	SA-CD/CD	Super Audio CD/CD player	TUNER	Built-in tuner
Button	Assigned Sony component																
VIDEO 1	VCR (VTR mode 3)																
VIDEO 2	VCR (VTR mode 2)																
VIDEO 3	Not assigned																
DVD	DVD player																
MD/TAPE	MD deck																
SA-CD/CD	Super Audio CD/CD player																
TUNER	Built-in tuner																
23 TV/VIDEO	Press TV/VIDEO and TV (13) at the same time to select the input signal (TV input or video input).																
SLEEP	Press to activate the Sleep Timer function and the duration which the receiver turns off automatically.																
24 TEST TONE	Press to activate the Test Tone function.																

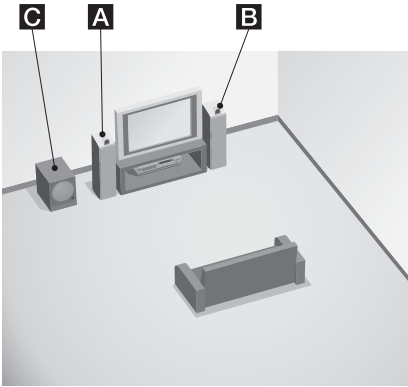
^{a)}The number 5, MASTER VOL +, TV VOL +, and  buttons have tactile dots. Use the tactile dots as references when operating the receiver.

Notes

- Some functions explained in this section may not work depending on the model.
- The above explanation is intended to serve as an example only. Therefore, depending on the component, the above operation may not be possible or may operate differently than described.

1: Installing speakers

This receiver allows you to use a 2.1 channel system (2 front speakers and one sub woofer).



A Front speaker (Left)

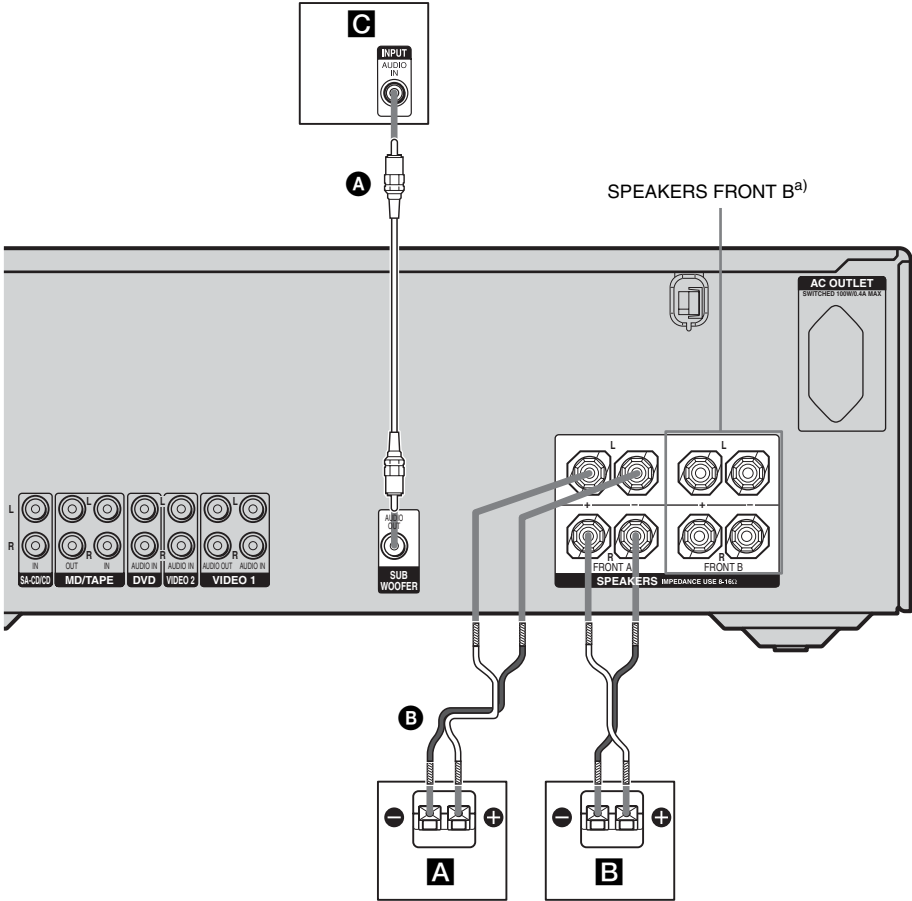
B Front speaker (Right)

C Sub woofer

Tip

Since the sub woofer does not emit highly directional signals, you can place it wherever you want.

2: Connecting speakers



- A** Monaural audio cord (not supplied)
- B** Speaker cords (not supplied)

- A** Front speaker A (Left)
- B** Front speaker A (Right)
- C** Sub woofer^{b)}

^{a)} If you have an additional front speaker system, connect them to the SPEAKERS FRONT B terminal. You can select the front speakers you want to use with the SPEAKERS (OFF/A/B/A+B) button. For details, see “6: Selecting the speaker system” (page 20).

^{b)} When you connect a sub woofer with an auto standby function, turn off the function when watching movies. If the auto standby function is set to ON, it turns to standby mode automatically based on the level of the input signal to a sub woofer, then sound may not be output.

3: Connecting the audio/video components

How to hook up your components

This section describes how to hook up your components to this receiver. Before you begin, refer to “Component to be connected” below for the pages which describe how to connect the audio/video components.

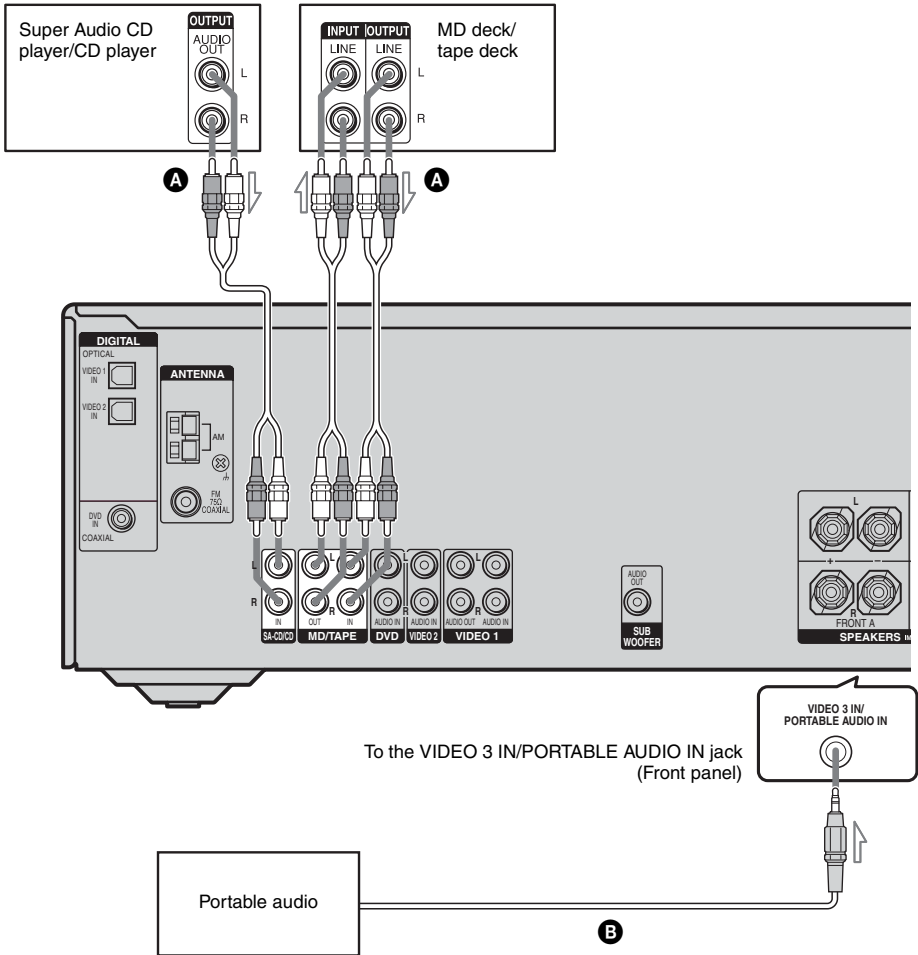
After hooking up all your components, proceed to “4: Connecting the antennas” (page 18).

Component to be connected

To connect	See
Audio components	page 15
<ul style="list-style-type: none">• Super Audio CD player/CD player• MD deck• Tape deck• Portable audio such as MP3 player, etc.	
Video components	page 16
<ul style="list-style-type: none">• DVD player• DVD recorder• Satellite tuner• VCR	

Connecting audio components

The following illustration shows how to connect audio components such as Super Audio CD player, MD deck, etc.



A Audio cord (not supplied)

B RCA cable with stereo headphone jack (not supplied)

Notes

- Distortion may occur when listening to a component connected to the VIDEO 3 IN/PORTABLE AUDIO IN jack on the front panel of this receiver. This is not a malfunction and will depend on the connected component.

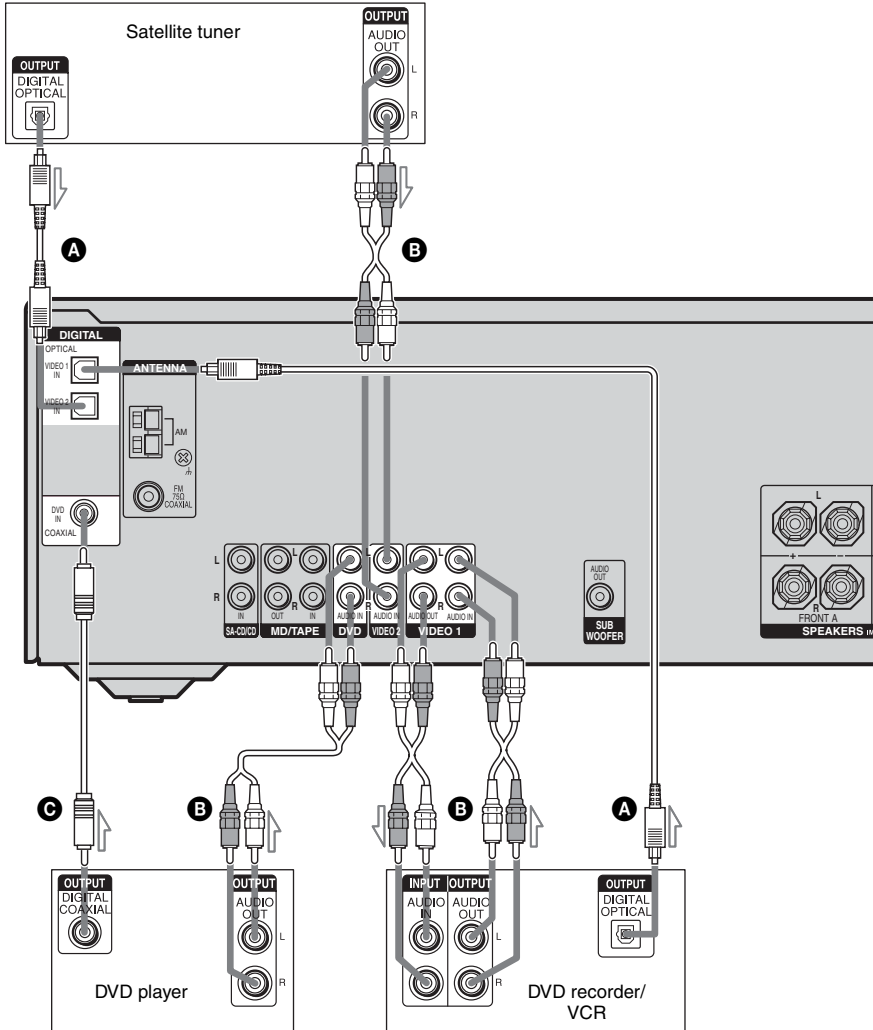
- If the sound from the component connected to the VIDEO 3 IN/PORTABLE AUDIO IN jack is very low, you may increase the volume level. However, before you select other component, be sure to reduce the volume level to avoid damaging your speakers.

Connecting video components

The following illustration shows how to connect video components such as DVD player, DVD recorder, satellite tuner or VCR.

If you connect a DVD recorder

Be sure to change the factory setting of the VIDEO 1 input button on the remote so that you can use the button to control your DVD recorder. For details, see “Changing button assignments” (page 40).



- A** Optical digital cord (not supplied)
- B** Audio cord (not supplied)
- C** Coaxial digital cord (not supplied)

Notes

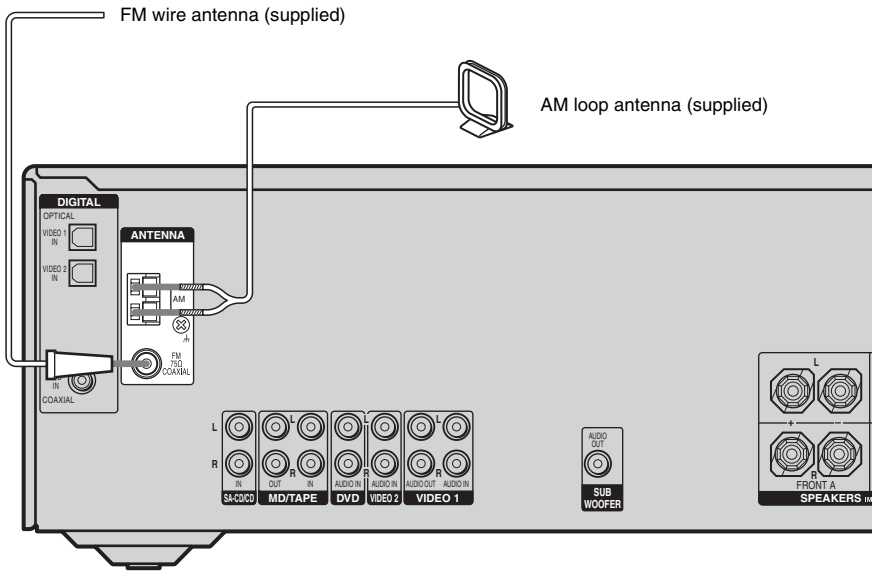
- You can only record the audio signals of the video component (such as DVD recorder, VCR, etc.) connected to this receiver. For details, refer to the operating instructions supplied with the connected video component.
- When connecting optical digital cords, insert the plugs straight in until they click into place.
- Do not bend or tie optical digital cords.

Tip

All the digital audio jacks are compatible with 32 kHz, 44.1 kHz, 48 kHz, and 96 kHz sampling frequencies.

4: Connecting the antennas

Connect the supplied AM loop antenna and FM wire antenna.



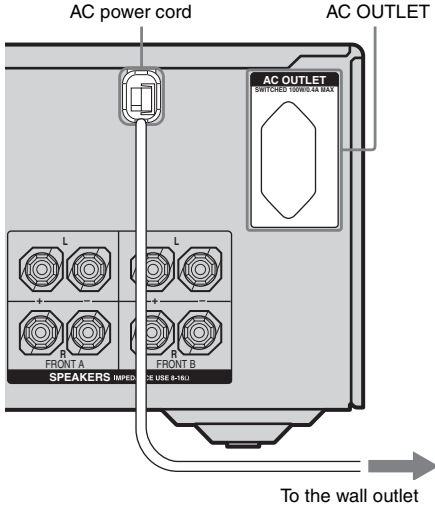
Notes

- To prevent noise pickup, keep the AM loop antenna away from the receiver and other components.
- Be sure to fully extend the FM wire antenna.
- After connecting the FM wire antenna, keep it as horizontal as possible.

5: Preparing the receiver and the remote

Connecting the AC power cord

Connect the AC power cord to a wall outlet.



Notes

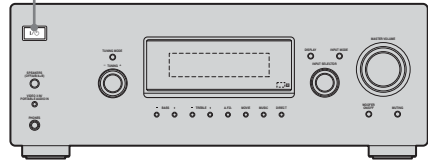
- Install this system so that the power cord can be unplugged from the wall socket immediately in the event of trouble.
- The AC OUTLET on the rear of the receiver is a switched outlet, which supplies power to the connected component only while the receiver is turned on.
- Make sure that the total power consumption of the component connected to the receiver's AC OUTLET does not exceed the wattage stated on the rear panel. Do not connect high-wattage electrical home appliances such as electric iron, fan, or TV to this outlet. This may cause a malfunction.

Performing initial setup operations

Before using the receiver for the first time, initialize the receiver by performing the following procedure. This procedure can also be used to return settings you have made to their factory defaults.

Be sure to use the buttons on the receiver for this operation.

1,2



1 Press I/O to turn off the receiver.

2 Hold down I/O for 5 seconds.

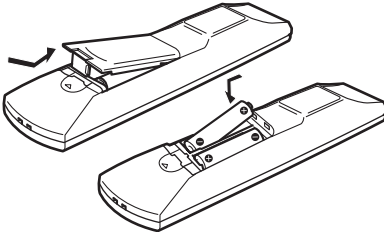
After “CLEARING” appears on the display for a while, “CLEARED” appears.

The following items are reset to their factory settings.

- All settings for the speaker system and sound adjustment.
- The sound field memorized for each input and preset station.
- All sound field parameters.
- All preset stations.
- MASTER VOLUME is set to “VOL MIN”.
- Input is set to “DVD”.

Inserting batteries into the remote

Insert two R6 (size-AA) batteries in the RM-AAU007 remote commander. Observe the correct polarity when installing batteries.



Notes

- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with old ones.
- Do not mix alkaline batteries and other kinds of batteries.
- Do not expose the remote sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
- If you do not intend to use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

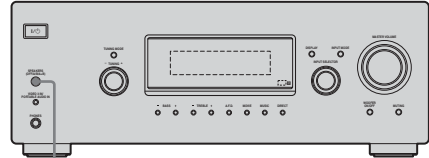
Tip

Under normal conditions, the batteries should last for about 3 months. When the remote no longer operates the receiver, replace all the batteries with new ones.

6: Selecting the speaker system

You can select the front speakers you want to drive.

Be sure to use the buttons on the receiver for this operation.



SPEAKERS
(OFF/A/B/A+B)

Press SPEAKERS (OFF/A/B/A+B) repeatedly to select the front speaker system you want to drive.

To select	Light up
The speakers connected to the SPEAKERS FRONT A terminals	SP A
The speakers connected to the SPEAKERS FRONT B terminals	SP B
The speakers connected to both the SPEAKERS FRONT A and B terminals (parallel connection)	SP A and SP B

To turn off the speaker output, press SPEAKERS (OFF/A/B/A+B) repeatedly until the “SP A” and “SP B” indicators on the display do not light up.

7: Adjusting the speaker levels and balance (TEST TONE)

You can adjust the speaker levels and balance while listening to the test tone from your listening position.

Tip

The receiver employs a test tone with a frequency centered at 800 Hz.

3 Press SUB WOOFER LEVEL +/- repeatedly to adjust the sub woofer level.

Initial setting: 0 dB

You can adjust from -10 dB to +10 dB in 1 dB step.

Tips

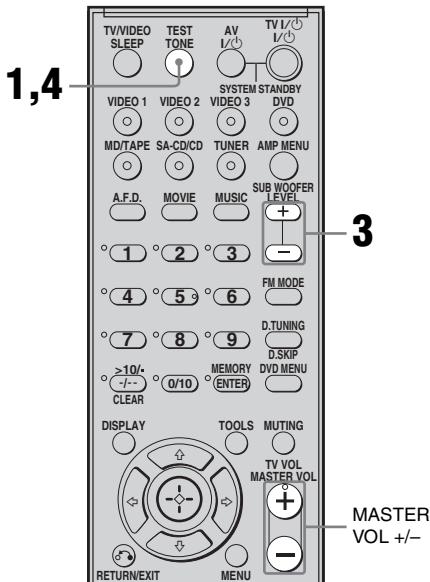
- To adjust the level of all speakers at the same time, press MASTER VOL +/- . You can also use MASTER VOLUME on the receiver.
- The adjusted value are shown on the display during adjustment.

4 Press TEST TONE again.

The test tone turns off.

Note

The test tone does not work when ANALOG DIRECT is selected.



1 Press TEST TONE.

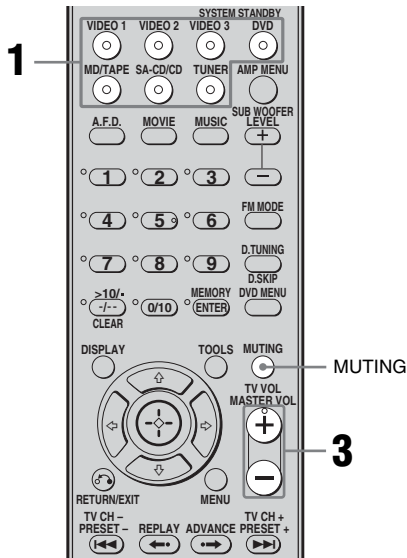
“T. TONE” appears on the display.

The test tone is output from each speaker in sequence as follows:

Left → Right → Sub woofer

2 Adjust the front speaker balance using the “FRT BAL” parameter (page 26).

Selecting a component



1 Press the input button to select a component.

You can also use INPUT SELECTOR on the receiver.

The selected input appears on the display.

Selected input [Display]	Components that can be played back
VIDEO 1 or VIDEO 2 [VIDEO 1 or VIDEO 2]	VCR, etc., connected to the VIDEO 1 or VIDEO 2 jack
VIDEO 3 [VIDEO 3]	Portable audio such as MP3 player etc., connected to the VIDEO 3 IN/PORTABLE AUDIO IN jack
DVD [DVD]	DVD player, etc., connected to DVD jack
MD/TAPE [MD/TAPE]	MD deck, tape deck, etc., connected to the MD/TAPE jack
SA-CD/CD [SA-CD/CD]	Super Audio CD/CD player, etc., connected to the SA-CD/CD jack
TUNER [FM or AM band]	Built-in radio tuner

2 Turn on the component and start playback.

3 Press MASTER VOL +/- to adjust the volume.

You can also use MASTER VOLUME on the receiver.

To mute the sound

Press MUTING.

The muting function will be canceled when you do the following.

- Press MUTING again.
- Increase the volume.
- Turn off the receiver.

To avoid damaging your speakers

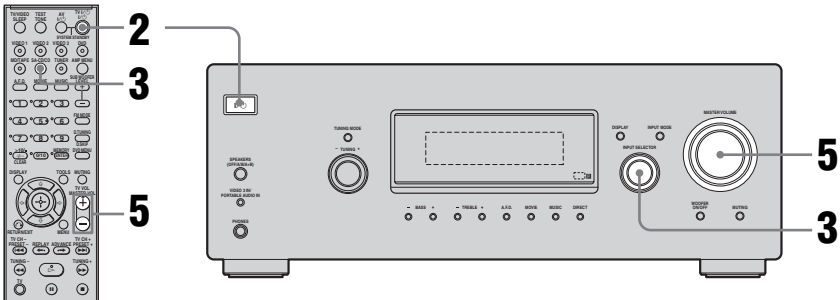
Before you turn off the receiver, be sure to turn down the volume level.

To playback a digital multi channel source

When you playback a digital multi channel source, the multi channel sound will be downmixed to 2 channels.

Listening/Watching a component

Listening to a Super Audio CD/CD



Notes

- The operation is described for a Sony Super Audio CD player.
- Refer to the operating instructions supplied with the Super Audio CD player or CD player.

Tip

You can select the sound field to suit the music. Refer to page 29 for details.

Recommended sound fields:

Classical: HALL

Jazz: JAZZ

Live concert: CONCERT

1 Turn on the Super Audio CD player/CD player, then place the disc on the tray.

2 Turn on the receiver.

3 Press SA-CD/CD.

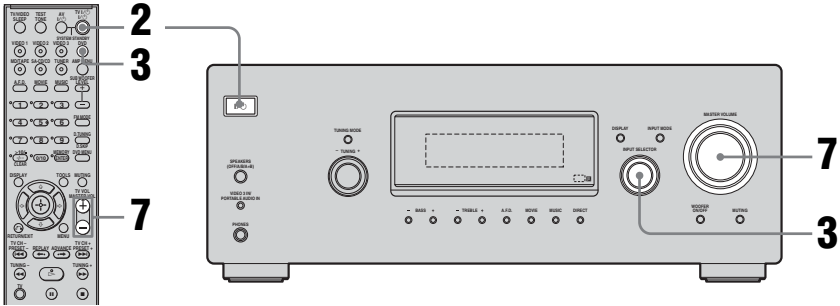
You can also use INPUT SELECTOR on the receiver to select “SA-CD/CD”.

4 Playback the disc.

5 Adjust to a suitable volume.

6 After you have finished listening to the Super Audio CD/CD, eject the disc and turn off the receiver and Super Audio CD player/CD player.

Watching a DVD



Note

Refer to the operating instructions supplied with the TV and DVD player.

Tips

- Select the audio format of the disc to be played, if necessary.
- You can select the sound field to suit the movie/music. Refer to page 29 for details.
Recommended sound fields:
Movie: C.STEX
Music: CONCERT

1 Turn on the TV and DVD player.

2 Turn on the receiver.

3 Press DVD.

You can also use INPUT SELECTOR on this receiver to select “DVD”.

4 Switch the input of the TV so that an image of the DVD is displayed.

If no image is displayed on the TV screen, make sure that the video output of the DVD player is connected to the TV.

5 Set up the DVD player.

Refer to “Quick Setup Guide” supplied with the receiver.

6 Playback the disc.

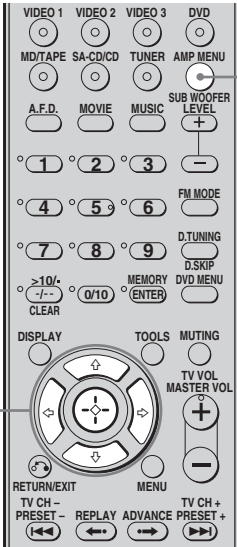
7 Adjust to a suitable volume.

8 After you have finished watching the DVD, eject the disc and turn off the receiver, TV and DVD player.

Amplifier Operations

Navigating through the setup parameters

By using the amplifier setup parameters, you can make various adjustments to customize the receiver.



To return to the previous display

Press control button ←.

To exit the menu

Press AMP MENU.

Note

Some parameters and settings may appear dimmed on the display. This means that they are either unavailable or fixed and unchangeable.

1 Press AMP MENU.

“FRT BAL” appears on the display.

2 Press control button ↑/↓ repeatedly to select the parameter you want to adjust.

3 Press the control button or control button → to enter the parameter.

4 Press control button ↑/↓ repeatedly to select the setting you want.

The setting is entered automatically.

Overview of the setup parameters

For details on navigating through the setup parameters, see page 25.

Parameters [Display]	Settings	Initial setting
Front speaker balance [FRT BAL] (page 27)	BAL. L +1 to BAL. L +8, BALANCE, BAL. R +1 to BAL. R +8	BALANCE
Dynamic range compressor [D. RANGE] (page 27)	COMP. OFF, COMP. STD, COMP. MAX	COMP. OFF
Digital audio input decoding priority [DEC. PRI.] (page 27)	DEC. AUTO, DEC. PCM	DEC. AUTO for: VIDEO 1, 2; DEC. PCM for: DVD
Digital broadcast language selection [DUAL] (page 27)	DUAL M/S, DUAL M, DUAL S, DUAL M+S	DUAL M
A/V Sync [A.V. SYNC.] (page 28)	A.V.SYNC. Y, A.V.SYNC. N	A.V.SYNC. N
Sub woofer phase polarity [SW PHASE] (page 28)	NORMAL, REVERSE	NORMAL
Brightness of the display [DIMMER] (page 28)	0% dim, 40% dim, 70% dim	0% dim

Customizing the receiver settings

You can adjust various receiver settings to suit your preference. For details on adjusting the parameters, see “Navigating through the setup parameters” (page 25) and “Overview of the setup parameters” (page 26)

■ FRT BAL (Front speaker balance)

Lets you adjust the balance between front left and right speakers.

■ D. RANGE (Dynamic range compressor)

Lets you compress the dynamic range of the sound track. This may be useful when you want to watch movies at low volumes late at night. Dynamic range compression is possible with Dolby Digital sources only.

- COMP. OFF
The dynamic range is not compressed.
- COMP. STD
The dynamic range is compressed as intended by the recording engineer.
- COMP. MAX
The dynamic range is compressed dramatically.

Tip

Dynamic range compressor lets you compress the dynamic range of the soundtrack based on the dynamic range information included in the Dolby Digital signal.

“COMP. STD” is the standard setting, but it only enacts light compression. Therefore, we recommend using the “COMP. MAX” setting. This greatly compresses the dynamic range and lets you view movies late at night at low volumes. Unlike analog limiters, the levels are predetermined and provide a very natural compression.

■ DEC. PRI. (Digital audio input decoding priority)

Lets you specify the input mode for the digital signal input to the DIGITAL IN jacks.

- DEC. AUTO
Automatically switches the input mode between DTS, Dolby Digital, or PCM.
- DEC. PCM
PCM signals are given priority (to prevent interruption when playback starts).
However, when other signals are input, there may be no sound depending on the format.
In this case, set to “DEC. AUTO”.

Note

When set to “DEC. AUTO” and the sound from the digital audio jacks (for CD, etc.) is interrupted when playback starts, set to “DEC. PCM”.

■ DUAL (Digital broadcast language selection)

Lets you select the language you want to listen to during digital broadcast. This feature only functions for Dolby Digital sources.

- DUAL M/S (Main/Sub)
Sound of the main language will be output through the front left speaker and sound of the sub language will be output through the front right speaker simultaneously.
- DUAL M (Main)
Sound of the main language will be output.
- DUAL S (Sub)
Sound of the sub language will be output.
- DUAL M+S (Main + Sub)
Mixed sound of both the main and sub languages will be output.

■ A.V. SYNC. (A/V Sync)

- A.V.SYNC. Y (Yes) (Delay time: 68 ms)
The audio output is delayed so that the time gap between the audio output and visual display is minimized.
- A.V.SYNC. N (No) (Delay time: 0 ms)
The audio output is not delayed.

Notes

- This parameter is useful when you use a large LCD or plasma monitor or a projector.
- This parameter is valid only when you use a sound field selected with the A.F.D. button.
- This parameter is not valid when
 - PCM 96 kHz or DTS 2048 signals are input.
 - ANALOG DIRECT function is selected.

■ SW PHASE (Sub woofer phase polarity)

Lets you set the sub woofer phase polarity.

- NORMAL

Normally, select “NORMAL”.

- REVERSE

Depending on the type of front speakers, the position of the sub woofer, and the cut-off frequency of the sub woofer, setting the phase polarity to “REVERSE” may produce better bass. Besides bass reproduction, the richness and tightness of the overall sound may also be affected. While listening from the main listening position, select the setting that best suits your environment.

■ DIMMER (Brightness of the display)

Lets you adjust the brightness in 3 steps.

Adjusting the tone

You can adjust the tonal quality of the front speakers using the TREBLE +/- and BASS +/- buttons on the receiver.

Press TREBLE +/- repeatedly to adjust the treble level and press BASS +/- repeatedly to adjust the bass level.

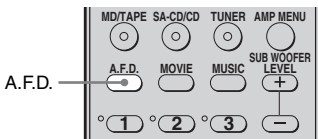
Initial setting: 0 dB

You can adjust from -6 dB to +6 dB in 1 dB step.

Selecting a Sound Field

Enjoying Dolby Digital and DTS sound (AUTO FORMAT DIRECT)

The Auto Format Direct (A.F.D.) mode allows you to listen to higher fidelity sound. This mode presents the sound as it was recorded/encoded without adding any surround effects. However, this receiver will generate a low frequency signal for output to the sub woofer when there is no LFE signals.



Press A.F.D.

“A.F.D. AUTO” appears on the display. The receiver automatically detects the type of audio signal being input and performs the proper decoding if necessary.

If you connect a sub woofer

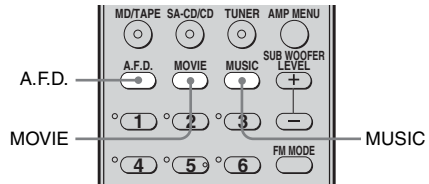
This receiver will generate a low frequency signal for output to the sub woofer when there is no LFE signal, which is a low-pass sound effect output from a sub woofer to a 2 channel signal.

Note

This function does not work when ANALOG DIRECT is selected.

Selecting a pre-programmed sound field

You can take advantage of surround sound simply by selecting one of the receiver’s pre-programmed sound fields. They bring the exciting and powerful sound of movie theaters and concert halls into your home.



Press **MOVIE** repeatedly to select a sound field for movies or press **MUSIC** repeatedly to select a sound field for music.

For details, see “Types of sound field available” (page 30).

Types of sound field available

Sound field for	Sound field [Display]	Effect
Movie	CINEMA STUDIO EX A DCS [C.ST.EX A]	Reproduces the sound characteristics of the Sony Pictures Entertainment "Cary Grant Theater" cinema production studio. This is a standard mode, great for watching almost any type of movie.
	CINEMA STUDIO EX B DCS [C.ST.EX B]	Reproduces the sound characteristics of the Sony Pictures Entertainment "Kim Novak Theater" cinema production studio. This mode is ideal for watching science-fiction or action movies with lots of sound effects.
	CINEMA STUDIO EX C DCS [C.ST.EX C]	Reproduces the sound characteristics of the Sony Pictures Entertainment scoring stage. This mode is ideal for watching musicals or films where orchestra music is featured in the soundtrack.
Music	HALL [HALL]	Reproduces the acoustics of a classical concert hall.
	JAZZ CLUB [JAZZ]	Reproduces the acoustics of a jazz club.
	LIVE CONCERT [CONCERT]	Reproduces the acoustics of a 300-seat live house.
Headphone	HEADPHONE 2CH [HP 2CH]	This mode is selected automatically if you use headphone when A.F.D. mode (page 29) is selected. Standard 2 channel stereo sources completely bypass the sound field processing and multi channel surround formats are downmixed to 2 channels.
	HEADPHONE DIRECT [HP DIR]	Outputs the analog signals without processing by the tone, sound field, etc.
	HEADPHONE THEATER DCS [HP THEA]	This mode is selected automatically if you use headphone when sound field for movie/music is selected. It allows you to experience a theater-like environment while listening through a pair of headphones.

About DCS (Digital Cinema Sound)

Sound fields with **DCS** mark use DCS technology.

DCS is a unique sound reproduction technology for home theater developed by Sony, in cooperation with Sony Pictures Entertainment, for enjoying the exciting and powerful sound of movie theaters at home. With this “Digital Cinema Sound” developed by integrating a DSP (Digital signal processor) and measured data, the ideal sound field intended by film makers can be experienced at home.





Note

This function does not work in the following cases:

- ANALOG DIRECT is selected.
- For signals with a sampling frequency of more than 48 kHz.

Tip

You can identify the encoding format of DVD software, etc., by looking at the logo on the package.

-  : Dolby Digital discs
-   : Dolby Surround encoded programs
-  : DTS Digital Surround encoded programs

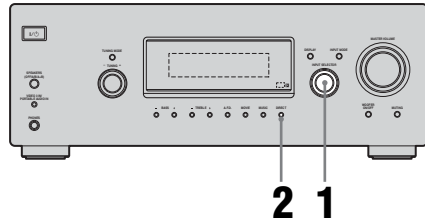
To turn off the surround effect for movie/music

Press A.F.D.

Listening to the sound without any adjustment (ANALOG DIRECT)

You can switch the audio of the selected input to two channel analog input. This function enables you to enjoy high quality analog sources.

When using this function, only the volume and front speaker balance can be adjusted.



- 1 Turn INPUT SELECTOR on the receiver to select the input you want to listen to in analog audio.**

You can also use the input buttons on the remote.

- 2 Press DIRECT on the receiver.**

The analog audio is output.

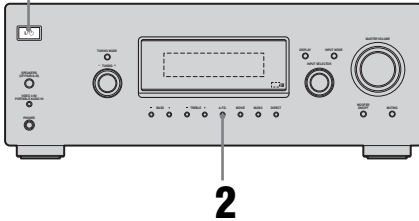
Note

When headphone is connected, “HP DIR” appears on the display.

Resetting sound fields to the initial settings

Be sure to use the buttons on the receiver for this operation.

1,2



1 Press I/⏻ to turn off the power.

2 While holding down A.F.D., press I/⏻.

“S.F. CLR.” appears on the display and all sound fields are reset to their initial setting.

Tuner Operations

Listening to FM/AM radio

You can listen to FM and AM broadcasts through the built-in tuner. Before operation, make sure you have connected the FM and AM antennas to the receiver (page 18).

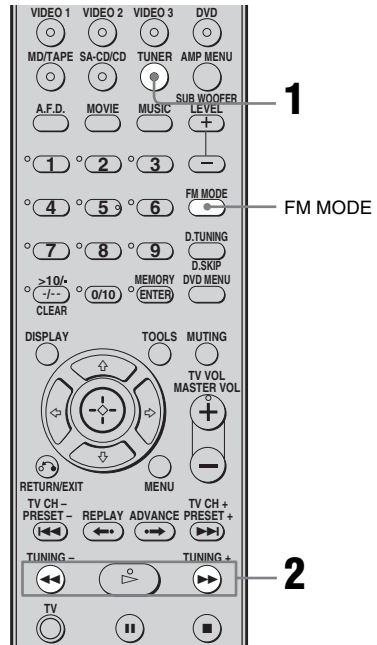
Tip

The tuning scale is:

FM: 50 kHz

AM: 9 kHz

Automatic tuning



1 Press TUNER repeatedly to select the FM or AM band.

2 Press TUNING + or TUNING –.

Press TUNING + to scan from low to high; press TUNING – to scan from high to low.

The receiver stops scanning whenever a station is received.

Using the controls on the receiver

- 1 Turn INPUT SELECTOR to select the FM or AM band.
- 2 Press TUNING MODE repeatedly to select “AUTO T.”.
- 3 Turn TUNING +/-.

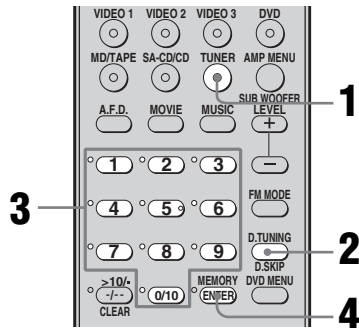
In case of poor FM stereo reception

If the FM stereo reception is poor and “STEREO” flashes on the display, select monaural audio so that the sound will be less distorted.

Press FM MODE repeatedly until the “MONO” indicator lights up on the display. To return to stereo mode, press FM MODE repeatedly until the “MONO” indicator on the display do not light up.

Direct tuning

You can enter the frequency of a station directly by using the numeric buttons.



1 Press TUNER repeatedly to select the FM or AM band.

You can also use INPUT SELECTOR on the receiver.

2 Press D.TUNING.

3 Press the numeric buttons to enter the frequency.

Example 1: FM 102.50 MHz

Select 1 → 0 → 2 → 5 → 0

Example 2: AM 1,350 kHz

Select 1 → 3 → 5 → 0

If you have tuned in an AM station, adjust the direction of the AM loop antenna for optimum reception.

4 Press ENTER.

If you cannot tune in a station

Make sure you have entered the right frequency. If not, repeat steps 2 to 4. If you still cannot tune in a station, the frequency is not used in your area.

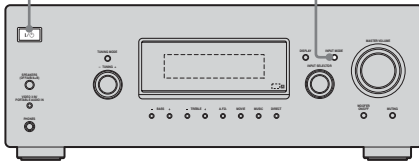
Storing FM stations automatically (AUTOBETICAL)

This function lets you store up to 30 FM and FM RDS stations in alphabetical order without redundancy. Additionally, it only stores the stations with the clearest signals.

If you want to store FM or AM stations one by one, see “Presetting radio stations” (page 35). Be sure to use the buttons on the receiver for this operation.

1,2

2



1 Press I/⏏ to turn off the receiver.

2 Hold down INPUT MODE and press I/⏏ to turn the receiver back on.

“AUTO-BETICAL SELECT” appears on the display and the receiver scans and stores all the FM and FM RDS stations in the broadcast area.

For RDS stations, the tuner first checks for stations broadcasting the same program, then stores only the ones with the clearest signal. The selected RDS stations are sorted alphabetically by their Program Service name, then assigned a 2-character preset code. For more details on RDS, see page 36.

Regular FM stations are assigned 2-character preset codes and stored after the RDS stations.

When this process is finished, “FINISH” appears on the display momentarily and the receiver returns to normal operation.

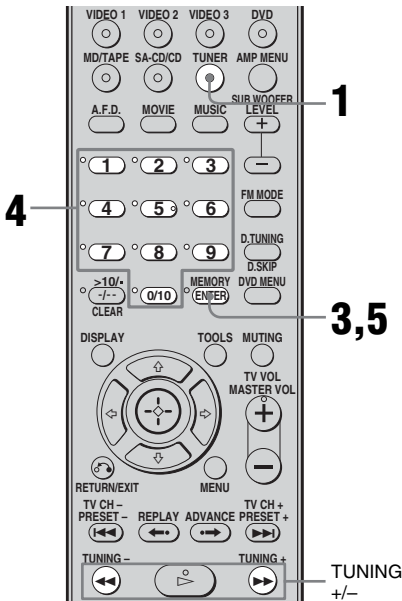
Notes

- Do not press any button on the receiver or supplied remote during autobetrical operation, except I/⏏.
- If you move to another area, repeat this procedure to store stations in your new area.
- For details on tuning the stored stations, see “Tuning to preset stations” (page 35).
- If you move the antenna after storing stations with this procedure, the stored settings may no longer be valid. If this happens, repeat this procedure to store the stations again.

Presetting radio stations

You can preset up to 30 FM stations and 30 AM stations. Then you can easily tune in the stations you often listen to.

Presetting radio stations



- 1 Press TUNER repeatedly to select the FM or AM band.**
You can also use INPUT SELECTOR on the receiver.
- 2 Tune in the station that you want to preset using automatic tuning (page 32) or direct tuning (page 33).**
Switch the FM reception mode, if necessary (page 33).
- 3 Press MEMORY.**
“MEMORY” lights up for a few seconds. Perform steps 4 and 5 before “MEMORY” goes out.

- 4 Press the numeric buttons to select a preset number.**

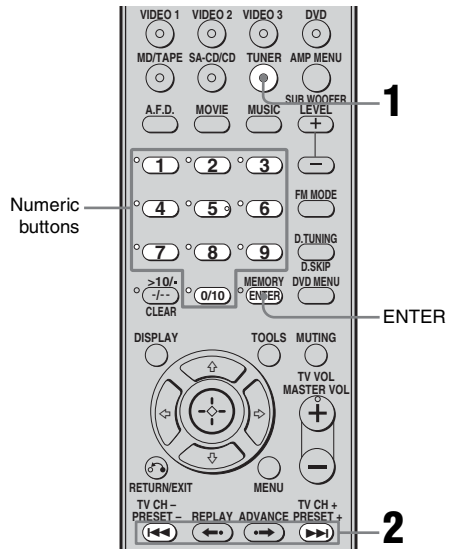
You can also press TUNING + or TUNING – to select a preset number. If “MEMORY” goes out before you select the preset number, start again from step 3.

- 5 Press ENTER.**

The station is stored as the selected preset number. If “MEMORY” goes out before you press MEMORY, start again from step 3.

- 6 Repeat steps 1 to 5 to preset another station.**

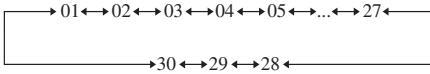
Tuning to preset stations



- 1 Press TUNER repeatedly to select the FM or AM band.**

2 Press PRESET + or PRESET – repeatedly to select the preset station you want.

Each time you press the button, you can select a preset station as follows:



You can also press the numeric buttons to select the preset station you want. Then, press ENTER to enter the selection.

Using the controls on the receiver

- 1 Turn INPUT SELECTOR to select the FM or AM band.
- 2 Press TUNING MODE repeatedly to select “PRESET T.”.
- 3 Turn TUNING +/- to select the preset station you want.

Using the Radio Data System (RDS)

This receiver also allows you to use RDS (Radio Data System), which enables radio stations to send additional information along with the regular program signal. You can display RDS information.

Notes

- RDS is operable only for FM stations.
- Not all FM stations provide RDS service, nor do they provide the same type of services. If you are not familiar with the RDS services in your area, check with your local radio stations for details.

Receiving RDS broadcasts

Simply select a station on the FM band using direct tuning (page 33), automatic tuning (page 32), or preset tuning (page 35).

When you tune in a station that provides RDS services, “RDS” lights up and the program service name appears on the display.

Note

RDS may not work properly if the station you tuned to is not transmitting the RDS signal properly or if the signal strength is weak.

Displaying RDS information

While receiving an RDS station, press **DISPLAY** repeatedly on the receiver.

Each time you press the button, RDS information on the display changes cyclically as follows:

Program Service name → Frequency → Program Type indication^{a)} → Radio Text indication^{b)} → Current Time indication (in 24-hour system mode) → Sound field currently applied

^{a)}Type of program being broadcast (page 37).

^{b)}Text messages sent by the RDS station.

Notes

- If there is an emergency announcement by government authorities, “ALARM” flashes in the display.
- When the message consists of 9 characters or more, the message scrolls across the display.
- If a station does not provide a particular RDS service, “NO XXXX” (such as “NO TEXT”) appears on the display.

Description of program types

Program type indication	Description
NEWS	News programs
AFFAIRS	Topical programs that expand on current news
INFO	Programs offering information on a wide spectrum of subjects, including consumer affairs and medical advice
SPORT	Sports programs
EDUCATE	Educational programs, such as “how-to” and advice programs
DRAMA	Radio plays and serials
CULTURE	Programs about national or regional culture, such as language and social concerns
SCIENCE	Programs about the natural sciences and technology

Program type indication	Description
VARIED	Other types of programs such as celebrity interviews, panel games, and comedy
POP M	Popular music programs
ROCK M	Rock music programs
EASY M	Easy Listening
LIGHT M	Instrumental, vocal, and choral music
CLASSICS	Performances of major orchestras, chamber music, opera, etc.
OTHER M	Music that does not fit into any categories above, such as Rhythm & Blues and Reggae
WEATHER	Weather information
FINANCE	Stock market reports and trading, etc.
CHILDREN	Programs for children
SOCIAL	Programs about people and the things that affect them
RELIGION	Programs of religious content
PHONE IN	Programs where members of the public express their views by phone or in a public forum
TRAVEL	Programs about travel. Not for announcements that are located by TP/TA.
LEISURE	Programs on recreational activities such as gardening, fishing, cooking, etc.
JAZZ	Jazz programs
COUNTRY	Country music programs
NATION M	Programs featuring the popular music of the country or region
OLDIES	Programs featuring oldies music
FOLK M	Folk music programs
DOCUMENT	Investigative features
NONE	Any programs not defined above

Switching the audio input mode

(INPUT MODE)

You can select the audio input mode by setting the audio input mode when you connect components to both digital and analog audio input jacks on the receiver.

1 Turn INPUT SELECTOR on the receiver to select the input.

You can also use the input buttons on the remote.

2 Press INPUT MODE repeatedly on the receiver to select the audio input mode.

The selected audio input mode appears on the display.

Audio input modes

- **AUTO IN**
Gives priority to digital audio signals when there are both digital and analog connections. If there are no digital audio signals, analog audio signals are selected.
- **COAX IN**
Specifies the digital audio signals input to the DIGITAL COAXIAL jack.
- **OPT IN**
Specifies the digital audio signals input to the DIGITAL OPTICAL jack.
- **ANALOG**
Specifies the analog audio signals input to the AUDIO IN (L/R) jacks.

Note

Some audio input modes may not be set up depending on the input.

Changing the display

You can check the sound field, etc., by changing the information on the display. Be sure to use the buttons on the receiver for this operation.

Press DISPLAY repeatedly.

Each time you press the button, the display changes cyclically as follows.

All inputs except the FM and AM band

Selected input → Sound field currently applied

FM and AM band

Program Service name* → Frequency → Program Type indication* → Radio Text indication* → Current Time indication (in 24-hour system mode)* → Sound field currently applied

* During RDS reception only (page 36).

Using the Sleep Timer

You can set the receiver to turn off automatically at a specified time.

Press SLEEP repeatedly while the power is on.

Each time you press the button, the display changes cyclically as follows:

2-00-00 → 1-30-00 → 1-00-00 → 0-30-00
→ OFF

When Sleep Timer is being used, “SLEEP” lights up on the display.

Tip

To check the remaining time before the receiver turns off, press SLEEP. The remaining time appears on the display. If you press SLEEP again, the sleep timer will be canceled.

Recording audio using the receiver

You can record audio from a VCR, TV, cassette deck or MD deck using the receiver. For details, refer to the operating instructions supplied with your recording component.

1 Press one of the input buttons to select the playback component.

You can also use INPUT SELECTOR on the receiver.

2 Prepare the playback component for playing.

For example, insert a CD into the CD player.

3 Prepare the recording component.

For example, insert a blank MD, etc. into the recording deck and adjust the recording level.

4 Start recording on the recording component, then start playback on the playback component.

Notes

- Sound adjustments do not affect the signal output from the MD/TAPE OUT jacks.
- Some sources contain copy guards to prevent recording. In this case, you may not be able to record from the source.

Changing button assignments

You can change the factory settings of the input buttons to suit the components in your system. For example, if you connect a DVD recorder to the VIDEO 1 jacks on the receiver, you can set the VIDEO 1 button on this remote to control the DVD recorder.

1 Hold down the input button of which you want to change the assignment.

Example: Hold down VIDEO 1.

2 Referring to the table below, press the corresponding button for the category you want.

Example: Press 4.

Now you can use the VIDEO 1 button to control the DVD recorder.

Categories and the corresponding buttons

Categories	Press
VCR (command mode VTR 3) ^{a)}	1
VCR (command mode VTR 2) ^{a)}	2
DVD player/DVD recorder (command mode DVD1) ^{b)}	3
DVD recorder (command mode DVD3) ^{b)}	4
CD player	5
MD deck	6
Tape deck B	7
Tuner (this receiver)	8
DVR (Digital CATV terminal)	9
DSS (Digital Satellite Receiver)	0/10

^{a)}Sony VCRs are operated with a VTR 2 or VTR 3 setting which correspond to 8 mm and VHS respectively.

^{b)}Sony DVD recorders are operated with a DVD1 or DVD3 setting. For details, refer to the operating instructions supplied with the DVD recorders.

To clear all remote button assignments

Press **I/⏻**, TEST TONE and MASTER VOL – at the same time.

The remote is reset to its factory settings.

Glossary

■ Dolby Digital

Digital audio encoding/decoding technology developed by Dolby Laboratories, Inc. It consists of front (left/right), center, surround (left/right) and sub woofer channels. It is a designated audio standard for DVD-video and also known as 5.1ch surround. Since surround information is recorded and reproduced in stereo, more realistic sound with fuller presence is delivered than with Dolby surround.

■ DTS Digital Surround

Digital audio encoding/decoding technology for theaters developed by Digital Theater Systems, Inc. It compresses audio less than Dolby Digital, delivering a higher quality sound reproduction.

■ Sampling frequency

To convert analog audio to digital, analog data should be quantified. This process is called sampling, and the number of times per second the analog data is quantified is called the sampling frequency. A standard music CD stores data quantified at 44,100 times per second, which is expressed as a sampling frequency of 44.1 kHz. Generally speaking, a higher sampling frequency means better sound quality.

Precautions

On safety

Should any solid object or liquid fall into the cabinet, unplug the receiver and have it checked by qualified personnel before operating it any further.

On power sources

- Before operating the receiver, check that the operating voltage is identical with your local power supply.
The operating voltage is indicated on the nameplate on the back of the receiver.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- If you are not going to use the receiver for a long time, be sure to disconnect the receiver from the wall outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.
- The AC power cord must be changed only at a qualified service shop.

On heat buildup

Although the receiver heats up during operation, this is not a malfunction. If you continuously use this receiver at a large volume, the cabinet temperature of the top, side and bottom rises considerably. To avoid burning yourself, do not touch the cabinet.

On placement

- Place the receiver in a location with adequate ventilation to prevent heat buildup and prolong the life of the receiver.
- Do not place the receiver near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.
- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunctions.
- Do not place the receiver near equipment such as a television, VCR, or tape deck. (If the receiver is being used in combination with a television, VCR, or tape deck, and is placed too close to that equipment, noise may result, and picture quality may suffer. This is especially likely when using an indoor antenna. Therefore, we recommend using an outdoor antenna.)
- Use caution when placing the receiver on surfaces that have been specially treated (with wax, oil, polish, etc.) as staining or discoloration of the surface may result.

On operation

Before connecting other components, be sure to turn off and unplug the receiver.

On cleaning

Clean the cabinet, panel, and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as alcohol or benzine.

If you have any questions or problems concerning your receiver, please consult your nearest Sony dealer.

Troubleshooting

If you experience any of the following difficulties while using the receiver, use this troubleshooting guide to help you remedy the problem.

There is no sound, no matter which component is selected, or only a very low-level sound is heard.

- Check that the speakers and components are connected securely.
- Check that both the receiver and all components are turned on.
- Check that MASTER VOLUME is not set to “VOL MIN”.
- Check that the SPEAKERS (OFF/A/B/A+B) is not set to off.
- Check that headphone is not connected.
- Press MUTING to cancel the muting function.
- Check that you have selected the correct component with the input buttons.
- The protective device on the receiver has been activated. Turn off the receiver, eliminate the short-circuit problem, and turn on the power again.

There is no sound from a specific component.

- Check that the component is connected correctly to the audio input jacks for that component.
- Check that the cord(s) used for the connection is (are) fully inserted into the jacks on both the receiver and the component.
- Check that you have selected the correct component with the input buttons.

There is no sound from one of the front speakers.

- Connect a pair of headphones to the PHONES jack to verify that sound is output from the headphones. If only one channel is output from the headphones, the component may not be connected to the receiver correctly. Check that all the cords are fully inserted into the jacks on both the receiver and the component. If both channels are output from the headphones, the front speaker may not be connected to the receiver correctly. Check the connection of the front speaker which is not outputting any sound.
- Make sure you have connected to both the L and R jacks of an analog component, and not only to either the L or R jack. Use an audio cord (not supplied).

There is no sound from analog 2 channel sources.

- Check that the INPUT MODE is not set to “COAX IN” or “OPT IN” for the selected input (page 38).

There is no sound from digital sources (from COAXIAL or OPTICAL input jack).

- Check that the INPUT MODE is not set to “ANALOG” (page 38).

The left and right sounds are unbalanced or reversed.

- Check that the speakers and components are connected correctly and securely.
- Adjust the balance parameters using the front speaker balance parameter (page 26).

There is severe hum or noise.

- Check that the speakers and components are connected securely.
- Check that the connecting cords are away from a transformer or motor, and at least 3 m away from a TV set or fluorescent light.
- Move your audio components away from the TV.
- The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.

There is no sound from the sub woofer.

- Check that the sub woofer is connected correctly and securely.
- Make sure you have turned on your sub woofer.
- There is no sound from the sub woofer depending on the sound field.
- Adjust the sub woofer level (page 21).

The surround effect cannot be obtained.

- Make sure the sound field function is on (press MOVIE, or MUSIC).
- Sound fields do not function for signals with a sampling frequency of more than 48 kHz.

Dolby Digital or DTS multi channel sound is not reproduced.

- Check that the DVD, etc. you are playing is recorded in Dolby Digital or DTS format.
- When connecting the DVD player, etc., to the digital input jacks of this receiver, check the audio setting (the settings for the audio output) of the connected component.

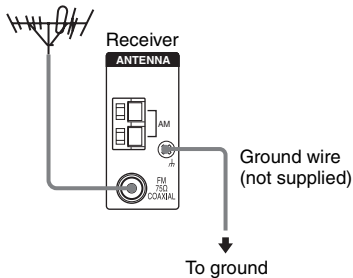
Recording cannot be carried out.

- Check that the components are connected correctly.
- Select the source component using the input buttons.

The FM reception is poor.

- Use a 75-ohm coaxial cable (not supplied) to connect the receiver to an outdoor FM antenna as shown below. If you connect the receiver to an outdoor antenna, ground it against lightning. To prevent a gas explosion, do not connect the ground wire to a gas pipe.

Outdoor FM antenna



Radio stations cannot be tuned in.

- Check that the antennas are connected securely. Adjust the antennas and connect an external antenna, if necessary.
- The signal strength of the stations is too weak (when tuning in with automatic tuning). Use direct tuning (page 33).
- Make sure you set the tuning interval correctly (when tuning in AM stations with direct tuning).
- No stations have been preset or the preset stations have been cleared (when tuning by scanning preset stations). Preset the stations (page 35).
- Press DISPLAY repeatedly on the receiver so that the frequency appears on the display.

RDS does not work.

- Make sure that you are tuned to an FM RDS station.
- Select a stronger FM station.

The RDS information that you want does not appear.

- Contact the radio station and find out whether they actually provide the service in question. If so, the service may be temporarily out of order.

There is no picture or an unclear picture appears on the TV screen or monitor.

- Make sure you have connected the video output of your video component to the TV.
- Move your audio components away from the TV.

Remote control

The remote does not function.

- Point the remote at the remote sensor on the receiver.
- Remove any obstacles in the path between the remote and the receiver.
- Replace all the batteries in the remote with new ones, if they are weak.
- Make sure you select the correct input on the remote.

Error messages

If there is a malfunction, the display shows a message. You can check the condition of the system by the message. Refer to the following table to solve the problem. If any problem persists, consult your nearest Sony dealer.

DEC. EROR

Appears when a signal the receiver cannot decode (ex. DTS-CD) is input and "DEC. PRI." is set to "DEC. PCM". Change the setting to "DEC. AUTO" (page 26).

PROTECT

Irregular current is output from the receiver. The receiver will automatically turn off after a few seconds. Check the speaker connection and turn on the power again.

If you are unable to remedy the problem using the troubleshooting guide

Clearing the receiver's memory may remedy the problem (page 19). However, note that all memorized settings will be reset to their factory settings and you will have to readjust all settings on the receiver.

If the problem persist

Consult your nearest Sony dealer. Note that if service personnel changes some parts during repair, these parts may be retained.

Reference sections for clearing the receiver's memory

To clear	See
All memorized settings	page 19
Customized sound fields	page 32

Specifications

Amplifier section

Stereo Power Output¹⁾, Reference Power Output¹⁾²⁾

8 ohms 20 Hz – 20 kHz, THD 0.09%

90 W + 90 W, 110 W/ch

8 ohms 1 kHz, THD 0.7%

105 W + 105 W, 120 W/ch

8 ohms 1 kHz, THD 10%

130 W + 130 W, 160 W/ch

¹⁾Measured under the following conditions:
230 V AC, 50 Hz

²⁾Reference power output for front speakers.
Depending on the sound field settings and the source, there may be no sound output.

Frequency response

Analog 10 Hz – 70 kHz
+0.5/-2 dB (with sound field and tone bypassed)

Inputs

Analog Sensitivity: 500 mV/
50 kohms
S/N³⁾: 96 dB
(A, 500 mV⁴⁾)

Digital (Coaxial) Impedance: 75 ohms
S/N: 100 dB
(A, 20 kHz LPF)

Digital (Optical) S/N: 100 dB
(A, 20 kHz LPF)

Outputs (Analog)

AUDIO OUT Voltage: 500 mV/10 kohms
SUB WOOFER Voltage: 2 V/1 kohm

Tone

Gain levels ±6 dB, 1 dB step

³⁾INPUT SHORT (with sound field and tone bypassed).

⁴⁾Weighted network, input level.

FM tuner section

Tuning range	87.5 - 108.0 MHz
Intermediate frequency	10.7 MHz
Useable sensitivity	11.2 dBf, 1 μ V/75 ohms
S/N	
Mono/Stereo	76 dB/70 dB
Harmonic distortion at 1 kHz	
Mono/Stereo	0.3%/0.5%
Separation	45 dB at 1 kHz
Frequency response	30 Hz – 15 kHz, +0.5/-2 dB

AM tuner section

Tuning range	
With 9-kHz tuning scale:	531 – 1,602 kHz
Intermediate frequency	450 kHz
Usable sensitivity	50 dB μ /m (at 1,000 kHz or 999 kHz)

General

Power requirements	230 V AC, 50/60 Hz
Power consumption	220 W
Power consumption (during standby mode)	0.2 W
AC outlet	1 switched, 100 W/0.4A MAX
Dimensions (w/h/d) (Approx.)	430 × 157.5 × 316 mm including projecting parts and controls
Mass (Approx.)	7.5 kg

Supplied accessories

FM wire antenna	(1)
AM loop antenna	(1)
Remote commander RM-AAU007	(1)
R6 (size-AA) batteries	(2)

Design and specifications are subject to change without notice.

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